

CLAIMS

Having thus described the invention, we claim:

1. A housing for a vehicle component, said housing comprising:
a housing body having an outer wall, said outer wall having an interior surface and an exterior surface;
a plurality of longitudinal splines located on one of said exterior surface or said interior surface of said outer wall;
a plurality of longitudinal troughs located between confronting splines, at least one of said troughs formed at a predetermined first depth; and
a spiral groove cut into either the exterior surface or interior surface of said outer wall opposite said splines so as to remove material sufficient to engage at least one of said troughs formed at said first depth thereby forming a plurality of apertures having a closed periphery and extending longitudinally along said outer wall.
2. The housing of claim 1, wherein said apertures have dimensions corresponding to the width of said machined groove and the width of said trough.
3. The housing of claim 2 wherein said splines and grooves are located on the exterior surface of said outer wall and said groove is cut into said inner surface of said outer wall.

4. The housing of claim 2 wherein said splines and grooves are located on the interior surface of said outer wall and said groove is cut into said exterior surface of said outer wall.
5. The housing of claim 1, wherein said splines comprise various configurations.
6. The housing of claim 5, wherein said troughs comprise various configurations.
7. The housing of claim 1, wherein said housing body is flow formed with said outer wall and said longitudinal splines are flow formed with said outer wall.
8. The housing of claim 1, wherein said housing is a clutch housing for use in vehicle transmission assemblies.
9. A method for forming a housing for a vehicle component comprising the steps of:
 - forming a housing body having an outer wall, said outer wall having an interior surface and an exterior surface;
 - forming a plurality of longitudinal splines located on one of said exterior surface of said outer wall or said interior surface of said outer wall;
 - forming a plurality of longitudinal troughs located between confronting splines, at least one of said troughs formed at a predetermined first depth; and
 - cutting a spiral groove into either the exterior surface or interior surface of said outer wall opposite said splines so as to remove material sufficient to engage at least one

of said troughs formed at said first depth thereby forming a plurality of apertures having a closed periphery and extending longitudinally along said outer wall.

10. The method for forming a housing as described in claim 9, wherein said apertures have dimensions corresponding to the width of said machined groove and the width of said trough.

11. The method for forming a housing as described in claim 10, wherein said splines and said grooves are formed on said exterior surface of said outer wall and said groove is cut into said inner surface of said outer wall.

12. The method for forming a housing as described in claim 10, wherein said splines and said grooves are located on said interior surface of said outer wall and said groove is cut into said exterior surface of said outer wall.

13. The method for forming a housing as described in claim 9, wherein said splines comprise various configurations.

14. The method for forming a housing as described in claim 9, wherein said troughs comprise various configurations.

15. The method for forming a housing as described in claim 9, wherein said housing body is flow formed with said outer wall and said longitudinal splines are flow formed with said outer wall.

16. The method for forming a housing as described in claim 9, wherein said housing is a clutch housing for use in vehicle transmission assemblies.

17. In a housing for a vehicle component comprising a housing body having an outer wall, said outer wall having an interior surface and an exterior surface, said outer wall having a plurality of longitudinal splines located on one of said exterior surface or said interior surface, said outer wall having a plurality of longitudinal troughs located between confronting splines wherein at least one of said troughs is formed at a predetermined first depth, the improvement comprising:

a spiral groove cut into either the exterior surface or interior surface of said outer wall opposite said splines so as to remove material sufficient to engage at least one of said troughs formed at said first depth thereby forming a plurality of apertures having a closed periphery and extending longitudinally along said outer wall.